## ABSTRACT

A method and system for performing initial cell search is disclosed. Step 1 processing is preformed to detect a peak primary synchronization code (PSC) location (i.e. chip offset or chip location). Step 2 processing is performed to obtain the  $t_{\text{offset}}$  and code group. Step 3 processing is performed to identify the midamble of a base station with which the WTRU performing the initial cell search may synchronize with.